

Product Data Sheet

C-Mn and low-alloy steels

SUPER OPTIMAL 7018 S

- ★ Ultra smooth finely rippled weld beads.
- ★ Less than 4.0 ml diffusible hydrogen level.
- ★ Highest impact notch toughness in class.
- ★ Superior reliability for the critical welding of C-Mn microalloyed & low alloy structural steels.
- ★ Recommended for critical security welding applications.
- ★ Suitable for off shore applications.

Classification **AWS A5.1:** E 7018-1 H4 **EN 499:** E 42 5 B 32 H5
EN ISO 2560: E 42 5 B 32 H5

Description and applications Basic heavy coated, electrode for producing tough and crack-free welded joints even on steels having a carbon content up to 0.40%. Good operating characteristics when positional welding. Weld metal has good toughness properties down to -50°C. Ultimate mechanical properties in 7018-1 group. Suitable for buffer layers.

Base materials S(P)235-S(P)420; GP240-GP280; L245-L360

All weld metal mechanical properties (typical)

Heat Treatment	Tensile Strength R_m (N/mm ²)	Yield Strength R_m (N/mm ²)	Elongation $A_5\%$	Impact Energy ISO-V(J)- 45°C	Hardness
As welded	550-620	450	30	80 J	--

Typical weld metal Chemical Composition (%)

C	Si	Mn	P	S
0.07	0.30	1.40	0.025	0.020

Amperes (A)

2.40	3.20	4.00	5.00
60-80	110- 135	140- 180	180-230

Storage and Redrying :

Keep dry and avoid condensation,
 HD≤5: Re-dry at 340-360°C for 2 hours, 5 times max.
 HD≤10: Re-dry at 300-350°C for 2 hours, 5 times max,

